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INLAND TRANSPORT COMMITTEE

Working Party on the Construction of Vehicles

Working Party on Passive Safety (GRSP)

REPORT OF THE WORKING PARTY ON PASSIVE SAFETY
ON ITS TWENTY-FIFTH SESSION

(3-7 May 1999)

1. GRSP held its twenty-fifth session from 3 May (afternoon) to 7 May (morning) 1999 under the chairmanship of Mr. C. Lomonaco (Italy). Experts from the following countries participated in the work: Belgium; Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Netherlands; Norway; Poland; Romania; Russian Federation; Spain; Sweden; United Kingdom; United States of America. A representative of the European Commission (EC) participated. Representatives of Japan took part in the session under paragraph 11 of the Commission's Terms of Reference. Experts from the following non-governmental organizations participated: International Touring Alliance / International Automobile Federation (AIT/FIA); Consumers International (CI); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); Liaison Committee for the Manufacture of Automobile Equipment and Spare Parts (CLEPA); European Experimental Vehicles Committee (EEVC).

2. The documents without a symbol distributed during the session are listed in annex 1 to this report.

DRAFT REGULATION ON AIRBAGS

Documentation: TRANS/WP.29/GRSP/1998/4; TRANS/WP.29/GRSP/1998/4/Rev.1; informal documents Nos. 1, 2, 7, 14 and 15 of annex 1 to this report.

3. Consideration of this item was initiated by a review of the situation after the agreement of the last session. The Chairman recalled that the only issues to be considered were those reflected in document TRANS/WP.29/GRSP/24, para. 22. GRSP agreed to continue the consideration of the draft Regulation taking into consideration document TRANS/WP.29/GRSP/1998/4 instead of document TRANS/WP.29/GRSP/1998/4/Rev.1. The expert from Germany indicated that informal document No. 1 presented the state of the art of the draft Regulation.

4. Concerning the scrapping of airbags (TRANS/WP.29/GRSP/1998/4, para. 5.1.1.3.), the Chairman recalled that, at its one-hundred-and-seventeenth session, WP.29 had decided (TRANS/WP.29/663, para. 46) to introduce a general set of provisions for the re-use, scrapping and recycling of materials from vehicles into the Consolidated Resolution (R.E.3). Noting this information, GRSP confirmed the decision, taken at the previous session, to delete paragraph 5.1.1.3. from the proposal.

5. Recalling the proposals noted in the report of the previous session, (TRANS/WP.29/GRSP/24, annex 3), the expert from CLEPA reiterated his objections (TRANS/WP.29/GRSP/24, para. 11). He tabled informal document No. 7 proposing the requirements applicable to the replacement airbags.

6. Considering the proposals by the Russian Federation (TRANS/WP.29/GRSP/24, para. 12), GRSP rejected the inclusion of a minimum crash speed at which the airbag should deploy, and adopted the related informal document No. 14, tabled by the expert from Germany. These adopted provisions are reproduced in annex 2 of this report as a part of the proposals agreed by GRSP.

7. The expert from the United Kingdom stated that his country wished to apply the requirements to a full range of occupants, from the 5th percentile female to the 95th percentile male dummies, because some manufacturers of aftermarket airbags might not carry out the same range of tests as major manufacturers of original equipment airbags.

8. The expert from Germany tabled informal document No. 15, containing the conclusion of the consideration of paragraphs 2.6.4., 5.4.2. and 6.3.2. This informal document was adopted by GRSP and it is reproduced, as a part of the proposals adopted by GRSP, in annex 2 to this report.

9. With regard to labelling, GRSP agreed to require a warning information based on the existing provisions of Regulation No. 44. At the request of GRSP, the expert from Consumers International tabled a proposal to be added to paragraph 7.2. GRSP considered and adopted the proposal, which is reproduced in annex 2 to this report as a part of the proposals agreed by GRSP.

10. The expert from CLEPA recalled that GRSP had adopted for annexes 4 and 5 of the draft Regulation a minimum dimension of "a = 5 mm" and this amendment had not been mentioned in the report of the last session (TRANS/WP.29/GRSP/24,

annex 2). The secretariat was requested to incorporate this amendment when preparing the final version of the draft Regulation.

11. The expert from Germany provided a new diagram of the fatigue test device, which is reproduced in annex 2 to this report as a part of the amendments adopted by GRSP.

12. Some editorial corrections suggested by the expert from Germany and contained in document TRANS/WP.29/GRSP/1998/4/Rev.1 are also reproduced in annex 2 to this report.

13. GRSP approved document TRANS/WP.29/GRSP/1998/4 with the amendments reproduced in the report of the last session (TRANS/WP.29/GRSP/24, annex 2), and in annex 2 to this report. GRSP also agreed to transmit the adopted text to WP.29 and AC.1 for consideration at the November 1999 sessions.

14. Informal document No. 2, tabled by the expert from Switzerland, was considered by GRSP. The Chairman recalled that, at its one-hundred-and-seventeenth session, WP.29 had taken the decision that noise produced by airbag deployment would be an integral part of the airbag studies, and GRSP should be the Working Party responsible for this issue.

15. GRSP agreed to consider this item at the next session. Experts were kindly requested to keep and bring copies of informal document No. 2 for the next session.

AMENDMENTS TO ECE REGULATIONS

(a) Regulation No. 12 (Steering systems)

Documentation: TRANS/WP.29/GRSP/1998/14.

16. As announced during the last session of GRSP (TRANS/WP.29/GRSP/24, paras. 23 and 24), the expert from OICA made a video presentation about the real possibility of a head impact in crashes at a moderate speed (from 20 km/h to 35 km/h). He explained that crashes had been made against a frontal and oblique barrier.

17. At the request of the expert from Germany, he also explained that the Hybrid III 50th percentile male dummy was used during the test, the seat was not in the foremost position, but in the middle one, and that the airbags had been disconnected in order to avoid their deployment.

18. As the conclusion of his presentation, the expert from OICA said that the concerns of the expert from the Netherlands of a head impact on the steering wheel were not confirmed by the tests and that no amendment to Regulation No. 12 was needed.

19. The expert from France also made a presentation, as he had offered during the previous session (TRANS/WP.29/GRSP/24, para. 16). His presentation focused on vehicles in conformity with the prescriptions of Regulation No. 12.

20. He explained that the aim of the study was to evaluate, for the belted as well as unbelted drivers, the risk of head injuries caused by an impact on the steering wheel at a low to moderate speed (16 to 35 km/h) in frontal impact.

21. The expert from France noted that for cars registered after 1993 (date of entry into force of the 03 series of amendments to Regulation No. 12), only eight AIS 1 (minor injuries) cases had been observed and there had been no AIS 2 (moderate injuries) or AIS 3 (major injuries).

22. The expert from Consumers International noted that the study presented by OICA had not included the 5th percentile female, which should be considered as the worst case.

23. As a conclusion of the data presentation, GRSP agreed that it was not necessary to continue consideration of the proposal of document TRANS/WP.29/GRSP/14, unless new studies would demonstrate that the data presented by the experts from France and OICA were not valid. In such a case, GRSP would continue consideration of this issue.

(b) Regulation No. 14 (Safety-belt anchorages)

Documentation: TRANS/WP.29/GRSP/1997/11; TRANS/WP.29/GRSP/1998/2; TRANS/WP.29/GRSP/1998/19; TRANS/WP.29/GRSP/1999/2; TRANS/WP.29/GRSP/1999/3; informal documents Nos. 6 and 13 of annex 1 to this report.

24. Concerning the proposal to make a cross reference with Regulation No. 80 (document TRANS/WP.29/GRSP/1998/2), GRSP agreed with the suggestion of the expert from CLEPA, to defer its consideration, until the new series of amendments to Regulation No. 14 would be completed.

25. The expert from France introduced a proposal to adapt the safety-belt anchorages requirements to new restraint systems comprising a load limiter function (TRANS/WP.29/GRSP/1999/3).

26. He explained that the proposal introduced an alternative to evaluate the safety-belt anchorage strength by a preliminary dynamic test with a dummy, in order to evaluate the real forces applied to anchorages. An adapted anchorages static strength test would be made in the same way that it existed in the current Regulation No. 14.

27. The experts from Germany, Italy, Spain, the United Kingdom, OICA and CLEPA agreed in principle with the proposal, but some of them asked for more time to consider it in detail.

28. At the request of the experts from the United Kingdom and Consumers International, the expert from France explained that the manikin to be used during the tests would be the Hybrid III 50th percentile.

29. Preliminary consideration of document TRANS/WP.29/GRSP/1999/3 was made and GRSP suggested the following:

Paragraph 2.16., delete the words "absorb energy and".

Paragraph 5.6.2. and annex 7, the table, delete the words "attached to the seat structure".

Annex 7, paragraph 1.3.2., add at the end ", 01 series of amendments."

It was also suggested that in paragraph 3.2.4.3. a new wording should indicate that the safety-belt approved according to Regulation No. 16 and to be tested according to paragraph 5.6.2. should have a specific approval mark, and finally, that in annex 7, paragraph 1.3.1., the airbag should be required.

30. The expert from Consumers International asked that consideration be given to conducting the preliminary dynamic test with the dummy on the sled without the instrument panel present. He said that the nature of current knee impact area design was such that there would be a risk that too much of the dummy's energy might be absorbed via the knee impact during the sled test. Such high load knee contact might not be available at other knee impact positions, and in these circumstances the restraint would have to absorb more energy. He also expressed the wish that thought should be given to ensuring that, for both airbag contact and knee loading, the preliminary test was demonstrably the "worst case".

31. The expert from France took note of the above comments and agreed to prepare, if necessary, a revision of document TRANS/WP.29/GRSP/1999/3 for consideration at the next session.

32. Documents TRANS/WP.29/GRSP/1998/19 and TRANS/WP.29/GRSP/1999/2 were considered and adopted by GRSP with the following modification to document TRANS/WP.29/GRSP/1998/19:

Paragraph 5.4.2.5., amend to read:

"..... In case of central rear seating positions not less than 240 mm"

Annex 3, location of effective belt anchorages,

Figure 1, lower drawing, amend the dimension "350 mm" to read "350 mm / for the central rear seating positions of M1 and N1 categories of vehicles: 240 mm".

33. GRSP agreed to transmit the two documents (paragraph 32. above) to WP.29 and AC.1 for consideration at the November sessions as draft Supplement 1 to the 05 series of amendments to Regulation No. 14.

34. The expert from the United States of America introduced informal document No. 6 containing a brief summary of the new FMVSS No. 225, Child Restraint Anchorage Systems. He explained that each vehicle would be required to have an upper tether anchorage point and two lower anchorage points and that requirements would be more strict than the equivalent ISO standard. He also announced that he would make available the definitive prescriptions of FMVSS 225, once adopted.

35. As agreed at the twenty-fourth session of GRSP (TRANS/WP.29/GRSP/24, para. 34), an informal group on "ISOFIX" had met, and an interim report on its activities was presented by the expert from the United Kingdom (informal document No. 13).

36. As a summary, he explained to the GRSP that the test programme had not yet been completed, and that the opinions in the informal group were divided on the subject of restraint rotation around the lower anchorages. He envisaged that, at the next meeting, scheduled for June, all the tests would be completed and progress would be made.

37. The expert from Consumers International reminded GRSP that WP.29 had given directives to prepare a global regulation on this matter and proposed that standards from the United States of America, Canada and Australia should be the basis for such a global regulation.

38. The expert from Germany explained to GRSP that the word "universal" in the sense of Regulation No. 44 meant, theoretically, applicability of a child restraint for all kinds of vehicles, but in practice it would be difficult to obtain a system useful for every vehicle.

39. The expert from the United Kingdom said that conclusions reached by the informal group would only provide information to GRSP and that the real task would be to compare the ISOFIX system with a three-point anchorage fixation.

40. The Chairman thanked the informal "ISOFIX" group for the work done and hoped that the final report would be available for the next session of GRSP.

(c) Regulation No. 17 (Strength of seats)

Documentation: TRANS/WP.29/GRSP/1997/1; TRANS/WP.29/GRSP/1997/6; informal documents Nos. 5 and 11 of annex 1 to this report.

41. The expert from the United States of America presented informal document No. 5, announced at the previous session (TRANS/WP.29/GRSP/24, para. 41). He explained that a total of 24 different seats had been tested, but no conclusion had been evident regarding the kind of seat structure preferable for reinforcing the back seat and that the tests would therefore continue.

42. The expert from Spain informed GRSP that some tests were also being made in his country. He explained that during one of the tests, a force equivalent to 17 g had been applied to a seat with the result that the back of the seat had ended up in a horizontal position. He announced that, at the session of May 2000, some results would be presented to GRSP, and asked for the collaboration of OICA on the study.

43. In relation to the strength of seats, the expert from the Czech Republic presented informal document No. 11 containing a proposal to amend Regulation No. 80 with the aim of excluding the possibility of misinterpreting the original wording in such a way that, with the upper boundary of 840 mm, the lower boundary should be taken as 0 mm. An alternative recommendation included the possibility of using the definition of critical areas 1 to 3 on the seat-backs and head-restraints.

44. The Chairman expressed his concern that Regulation No. 80 was under the responsibility of GRSG, but GRSP agreed to consider this issue at the next session. The Chairman announced that he would inform WP.29 about the decision taken by GRSP.

45. To allow for further consideration of the proposal, the secretariat was requested to distribute informal document No. 11 with an official symbol.

46. Concerning document TRANS/WP.29/GRSP/1997/1, the Chairman recalled that during the twenty-fourth session (TRANS/WP.29/GRSP/24, paras. 42 and 43), some test results had demonstrated that the proposal did not improve the seat-backs strength in comparison with the 07 series of amendments to Regulation No. 17 which had been in force since 6 August 1998.

47. The experts from Italy, France, OICA and CLEPA suggested that tests should be made to confirm that the proposal of document TRANS/WP.29/GRSP/1997/1 would improve the strength of seats, in comparison with the prescriptions of the 07 series of amendments to Regulation No. 17.

48. The experts from the United Kingdom and Consumers International urged the adoption of the proposal under discussion in order to limit the excursion of the child in a restraint seat after a rear impact.

49. The expert from Germany proposed the following compromise:

Paragraph 5.13.2., the last sentence, amend to read:

".... After the test, no sharp or rough edges and no additional load caused by displaced test blocks and/or by the deformed seat-back likely to increase the danger or severity of injuries of the occupants shall be present."

50. GRSP agreed to consider this proposal at the next session and asked the experts from the United Kingdom and Consumers International to provide new data demonstrating that improvement of Regulation No. 17 was necessary.

51. Concerning document TRANS/WP.29/GRSP/1997/6, transmitted by the expert from Spain, several reservations were expressed by the experts from France, Italy and OICA.

52. In order to find a solution, the expert from Spain agreed to prepare a new proposal in cooperation with OICA for consideration at the next session.

(d) Regulation No. 21 (Interior fittings)

Documentation: TRANS/WP.29/GRSP/1998/17; informal documents Nos. 10 and 12 of annex 1 to this report.

53. The expert from Spain presented informal document No. 10. He explained that the aim of the proposal was to simplify dimensional requirements dividing the interior part of the vehicle in three distinct areas, and to introduce into Regulation No. 21 the side and rear facing seats.

54. GRSP agreed that the proposal should be considered at the next session and requested the secretariat to distribute informal document No. 10 with an official symbol.

55. The expert from the Netherlands presented a draft corrigendum to Regulation No. 21 (informal document No. 12) in order to avoid misinterpretation of paragraph 5.3.4.1.

56. Some experts requested more time to consider this document and GRSP agreed to consider the proposal at the next session. The secretariat was asked to distribute informal document No. 12 with an official symbol.

(e) Regulation No. 29 (Cabs of commercial vehicles)

Documentation: TRANS/WP.29/GRSP/1998/13; TRANS/WP.29/GRSP/1999/1; informal documents Nos. 3 and 17 of annex 1 to this report.

57. The expert from Sweden presented informal document No. 3 which described the current Swedish national regulations for cabs of commercial vehicles.

58. The expert from Italy tabled informal document No. 17 which proposed to limit the scope of Regulation No. 29 to vehicles with a total mass of more than 7,000 kg. He said that this was the value contained in Regulation No. 29 before its scope had been amended.

59. In his proposal (TRANS/WP.29/GRSP/1999/1), the expert from the Russian Federation proposed to include into the scope of Regulation No. 29 vehicles of categories N1 (excluding those with a total mass lower than 1,500 kg), N2 and N3. He also suggested to establish the concept of the strength of cabs of commercial vehicles.

60. The expert from the Czech Republic recalled the presentation of his proposal (TRANS/WP.29/GRSP/1998/13) which he had made at the twenty-fourth session (TRANS/WP.29/GRSP/24, para. 52).

61. He explained that the proposal had three main points: the amendment of the scope, in order to include N2 and N3 vehicles except those with the cab integrated into the superstructure, the amendment concerning the impact pendulum, and the adjustment of the corresponding units of mass and force.

62. GRSP noted that the limitation of the scope to vehicles of N2 and N3 categories would present a problem for those countries in which Regulation No. 29 was the only Regulation applied to commercial vehicles, because vehicles N1, if excluded from the scope of Regulation No. 29, would not be covered by any Regulation.

63. The experts from the United Kingdom and France announced that, in their countries, independent research programmes related to the matter under consideration were in progress and suggested that no amendments should be considered before the end of the programmes.

64. The Chairman suggested to continue to work on Regulation No. 29, taking account of the results of the research programmes mentioned by France and the United Kingdom. He also noted that the main issue was the definition of the scope of the Regulation. He suggested to have two different sets of prescriptions, one to be applied to vehicles with a maximum gross mass more than 7,000 kg and the other for vehicles with less than 7,000 kg of maximum gross mass.

(f) Regulation No. 44 (Child restraints)

Documentation: TRANS/WP.29/GRSP/1997/12; TRANS/WP.29/GRSP/1999/4/Rev.1; informal documents Nos. 4, 16 and 18 of annex 1 to this report.

65. The expert from the United Kingdom invited the experts to make available information about accidents with airbags causing fatal injuries to children.

66. The expert from the United States of America presented informal document No. 4 containing a brief summary of FMVSS No. 213. He explained that some prescriptions (excursion limit of head and knee) were more stringent than in Regulation No. 44 and confirmed that an upper anchorage system (top tether) would be mandatory.

67. Document TRANS/WP.29/GRSP/1999/4/Rev.1 was considered in conjunction with informal document No. 16 tabled by the expert from CLEPA. It was adopted, in principle, with the following modifications:

Paragraph 7.1.5.1., amend to read:

"7.1.5.1. Buckle assemblies, retractors, adjusters and lock-off devices that are liable to be affected by temperature, shall be subject to the temperature test specified in paragraph 8.2.8. below. */"

*/ Study reservation by the Netherlands.

Paragraph 8.1.3.6.4., amend to read:

"..... masking tape of sufficient length and width. In the case of rear-facing restraints, it is permitted to use a light-weight masking tape to connect the dummy's head to the 100 mm bar or the back of the restraint during the sled acceleration."

Paragraph 8.2.8.1., amend to read:

"8.2.8.1. The components specified in paragraph 7.1.5.1. shall be exposed
(i)
(ii) an environment shall be attained within 90 */ minutes;
then
(iii) an environment having a temperature between 15°C and 23°C shall be"

*/ Reservation by Sweden.

Annex 15,

Paragraph 6.1.8., amend to read:

"6.1.8. The 150 mm requirement also applies to carry cots, except if a special device is used to link the carry cot and the safety belt."

Paragraph 8.2.8.1., (French version only), amend to read:

"..... sera exposé à un environnement de temperature au moins égale à 80°C au dessus"

68. Paragraph 6.1.8. of the Regulation, allowing alternative belt routes was considered in detail, although no agreement was reached. The expert from Consumers International tabled informal document No. 18 containing a proposal to be added to the text of document TRANS/WP.29/GRSP/1999/4/Rev.1.

69. GRSP agreed to continue consideration of the pending paragraphs of document TRANS/WP.29/GRSP/1999/4/Rev.1 at the next session, and requested the secretariat to distribute informal document No. 18 with an official symbol. The expert from Germany was invited to prepare for the next session a revised proposal, containing not only the issues pending, but also the agreements reached.

70. Consideration of document TRANS/WP.29/GRSP/1997/12 was deferred to the next session, pending the final report of the informal "ISOFIX" group.

(g) Regulation No. 94 (Frontal collision protection)

Documentation: TRANS/WP.29/GRSP/1999/5.

71. The expert from Consumers International presented document TRANS/WP.29/GRSP/1999/5, based on an informal document which had been presented at the twenty-fourth session (TRANS/WP.29/GRSP/24, para. 60). He explained that the proposed warning to vehicle users would consist of a label plus a text, and proposed to accept the text approved for the draft Regulation on airbags (see para. 9 above).

72. The expert from OICA said that the proposal was not linked to the technical consideration of ECE Regulations and was out of the scope of the type-approval system. He also explained that such kind of warning was essentially linked to the consumer information and distribution services. He stated that for the manufacturers it would be very difficult to know where the vehicle would be sold in order to choose the language of the text proposed.

73. The expert from OICA proposed that this matter would better be addressed in the Consolidated Resolution on the Construction of Vehicles (R.E.3) or in national requirements. He also voiced his view that a pictogram without text was a preferred solution avoiding the language problem.

74. Several experts supported OICA's position, and suggested that the ISO symbol was a satisfactory solution to the problem.

75. The Chairman concluded that the language question would be difficult to manage on a type approval basis and informed GRSP of his intention to present to WP.29 at its one-hundred-and-eighteenth session the suggestion of resolving the issue on a national basis.

(h) Regulation No. 95 (Lateral protection collision)

76. The expert from the United Kingdom made a presentation on the programme of barrier design which EEVC was carrying out. He informed GRSP that Technical Services in Europe, the United States of America and Japan were involved in the studies evaluating the barrier face designs.

77. He also envisaged that the programme would be completed in time in order to present a definitive report at the next session of GRSP. Following the request made by several experts, he distributed the copies of his presentation.

78. GRSP thanked the EEVC for its work and agreed to keep this item on the agenda for the next session.

REGULATION NO. 22 (Protective helmets)

Documentation: TRANS/WP.29/GRSP/1998/16 and Add.1; TRANS/WP.29/GRSP/1999/7; informal documents Nos. 8 and 9 of annex 1 to this report.

79. The expert from Germany presented document TRANS/WP.29/GRSP/1999/7, which consolidated documents TRANS/WP.29/GRSP/1998/5/Rev.1, TRANS/WP.29/GRSP/1998/15/Rev.1 and TRANS/WP.29/GRSP/1998/16/Add.1, as agreed by GRSP at its twenty-fourth session (TRANS/WP.29/GRSP/24, paras. 65, 70 and 75). He confirmed to GRSP that the informal group on Regulation No. 22 had agreed the proposals of document TRANS/WP.29/GRSP/1999/7. Nevertheless, he presented informal document No. 9, with some additional corrections.

80. GRSP considered and approved document TRANS/WP.29/GRSP/1999/7 as amended by informal document No. 9. This informal document is reproduced in annex 3 to this report.

81. The expert from Germany presented also informal document No. 8, which had been prepared by the experts of the informal group on Regulation No. 22. He explained that the proposal was aimed at introducing the necessary amendments to document TRANS/WP.29/GRSP/1998/16, in order to complete a test for rotation-inducing forces caused by helmet projections and by friction against the impact surfaces.

82. GRSP considered and adopted document TRANS/WP.29/GRSP/1998/16 as amended by informal document No. 8 with minor modifications. At the request of the expert from the Netherlands, the secretariat was asked to revise the numbering of paragraphs in the final version of the consolidated proposal for amendments to Regulation No. 22, in order to make sure that mistakes would be avoided.

83. GRSP agreed that documents TRANS/WP.29/GRSP/1999/7 and TRANS/WP.29/GRSP/1998/16, together with the adopted informal documents Nos. 8 and 9, would constitute the 05 series of amendments to Regulation No. 22. It was also agreed to transmit it to WP.29 and AC.1 for consideration at its sessions of November 1999. The secretariat was requested to prepare in due time a working document, containing all the amendments adopted by GRSP.

84. The expert from the United Kingdom recalled the declaration deposited by the European Community with its instrument of accession to the amended 1958 Agreement, which stated: "UN/ECE Regulation No. 22 shall not, in accordance with the rules of the Treaty, apply to the United Kingdom before 1 July 2000 or, if earlier, until such time as the Community accedes to an amended UN/ECE Regulation on protective helmets and visors which provides for the same or higher standards for such helmets and visors as are applicable in the United Kingdom on the 27 November 1997." Considering the internal procedures to be completed in his country, he asked for an estimate of the date of the entry into force of the 05 series of amendments.

85. The secretariat considered that it would be difficult to ensure that this series of amendments would be in force before 1 July 2000, but promised that all necessary efforts would be taken in order to complete the procedures in time.

86. GRSP expressed its appreciation to Mr. Beisswaenger, Chairman of the informal group on helmets, for the quality of the work produced by the informal group on the completion of its task. Special mention was given to the Italian manufacturers for their collaboration.

OTHER BUSINESS

(a) Regulation No. 58 (Rear underrun protective devices)

87. The secretariat made available to GRSP a video received from an expert from Brazil. The video presentation showed an intelligent rear underrun protective device which effectively avoided underrunning of a passenger car under the rear end of a truck. The website of the project (<http://www.fem.unicamp.br/impact>), may be visited to obtain more information about the device being developed in Brazil.

88. GRSP was very impressed with the presentation and regretted the absence of the expert from Brazil. The Chairman recalled that this matter was, in

principle, under the responsibility of GRSG, and announced that he would transmit to WP.29, at its one-hundred-and eighteenth session, the question of amendment of Regulation No. 58.

(b) Global technical regulations

89. The expert from France suggested that for reasons of coordination a new item should be put on the agenda concerning the exchange of information on national and/or regional regulations which could have an influence on the work developed by GRSP. He also suggested that this exchange of information should be applied to the draft regulations to be annexed to the Global Agreement. GRSP took note of the suggestions and agreed that in future agendas, a new item should be placed under "Other business", referring to these subjects.

(c) Tribute to Mr. K. Brettschneider

90. With deep sorrow, GRSP learned that Mr. Klaus Brettschneider died on 24 April 1999. All the delegates honoured his memory, recalled his collaboration in the work of GRSP and transmitted their condolences to his family.

AGENDA FOR THE NEXT SESSION

91. For the twenty-sixth session, to be held in Geneva from 29 November (14.30 h) to 3 December (12.30 h) 1999 1/, GRSP agreed on the following agenda:

1. Draft Regulation on airbags - development
2. Amendments to ECE Regulations
 - 2.1. Regulation No. 12 (Steering systems)
 - 2.2. Regulation No. 14 (Safety-belt anchorages)
 - 2.3. Regulation No. 17 (Strength of seats)
 - 2.4. Regulation No. 21 (Interior fittings)
 - 2.5. Regulation No. 29 (Cabs of commercial vehicles)
 - 2.6. Regulation No. 44 (Child restraints)
 - 2.7. Regulation No. 80 (Strength of seats in public service vehicles)

1/ As part of the secretariat's efforts to reduce expenditure, all the official documents distributed prior to the session by mail will not be available in the conference room for distribution to session participants. Delegates are kindly requested to bring their copies of documents to the meeting.

- 2.8. Regulation No. 94 (Frontal collision protection)
 - 2.9. Regulation No. 95 (Lateral collision protection)
 - 3. Other business
 - 3.1. Draft global technical regulations to be annexed to the Global Agreement
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Annex 1

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title
1.	Germany	1.	E	Agreements on Draft Regulation on replacement airbags
2.	Switzerland	1.	E	Hearing damage caused by airbags
3.	Sweden	2.5.	E	Description of the Swedish national regulations for Cabs for Trucks
4.	USA	2.6.	E	Federal Motor Vehicle Safety Standard (FMVSS) No.213. Child Restraint Systems
5.	USA	2.3.	E	Determination of Moment-Deflection Characteristics of Automobile Seat Backs
6.	USA	2.2.	E	Federal Motor Vehicle Safety Standard (FMVSS) No.225. Child Restraint Anchorage Systems
7.	CLEPA	1.	E	Draft Regulation on replacement airbag Document TRANS/WP.29/GRSP/1994/4/Rev.1
8.	Germany	3.	E	Proposal for draft amendments (05 series) to Regulation No. 22
9.	Germany	3.	E	Document TRANS/WP.29/GRSP/1997/7 - Corrigendum 01
10.	Spain	2.4.	E	Proposal of amendments to Regulation No. 21 (Draft)
11.	Czech Rep.	2.3.	E	Proposal for a draft amendment to Regulation No. 80-01
12.	Netherlands	2.4.	E	Corrigendum to Regulation No. 21
13.	United Kingdom	2.2.	E	Interim report for GRSP May 1999
14.	Germany	1.	E	Draft Regulation on airbags (additional amendments) (Document TRANS/WP.29/GRSP/1998/4/Rev.1)
15.	Germany	1.	E	Draft Regulation on airbags (additional amendments) (Document TRANS/WP.29/GRSP/1998/4/Rev.1)
No.	Transmitted by	Agenda item	Language	Title

16. CLEPA	2.6.	E	Comments on TRANS/WP.29/GRSP/1999/4/Rev.1
17. Italy	2.5.	E	Italian proposal for a new field of application of Reg. 29
18. Consumers International	3.	E	Additional proposals to document TRANS/WP.29/GRSP/1999/4/Rev.1
- Consumers International	1.	E	Draft Regulation on airbags
- France	2.1	E	Probability of head impact against the steering wheel in low to moderate speed Frontal collision configuration
- United Kingdom	2.8.	E	EEVC MDB evaluation test matrix

Annex 2

AMENDMENTS TO THE PROPOSAL FOR A DRAFT REGULATION
CONCERNING REPLACEMENT AIRBAGS AGREED IN PRINCIPLE BY GRSP
(Documents TRANS/WP.29/GRSP/1998/4 and
TRANS/WP.29/GRSP/24, annex 2)

The title, the list of contents, and throughout the Regulation, amend the words "airbag device", to read "airbag system".

The list of contents

Paragraph 5.1., amend to read:

"5.1. General requirements for the approval of an airbag module for a replacement airbag system, a replacement steering wheel equipped with an airbag module of an approved type, or a replacement airbag system other than that installed in a steering wheel."

Paragraph 10., amend to read:

"10. MODIFICATIONS OF THE TYPE OF AN AIRBAG MODULE OR A VEHICLE WITH REGARD TO AN AIRBAG SYSTEM OR A REPLACEMENT STEERING WHEEL WITH AN AIRBAG OR A REPLACEMENT AIRBAG SYSTEM, OTHER THAN THAT INSTALLED IN A STEERING WHEEL"

Text of the Regulation,

Paragraph 1.3., amend to read:

"1.3. to replacement airbag systems other than those installed in steering wheels and equipped with airbag modules ..."

Paragraph 2.4. (new), amend to read:

"2.4. Replacement steering wheel (equipped with an airbag module) means an aftermarket steering wheel which is supplied to modify a motor vehicle and which may vary in its functional dimensions, form and/or material from the original steering wheel provided by the vehicle manufacturer."

Paragraph 2.6.4., amend to read:

"2.6.4. Category D: Device intended to protect the front seat occupant(s) in the event of a lateral collision."

Paragraph 3.2.2., amend to read:

"3.2.2. For each type of a replacement steering wheel equipped with an airbag module, the application shall be accompanied by the following documents in triplicate and the following particulars:"

Paragraph 3.3.1., amend the word "those" to read "that".

Paragraph 4.1.1., amend to read:

"4.4.1. If the examples of the replacement airbag module submitted for approval"

Paragraph 4.1.2., amend to read:

".... The same Contracting Party may not assign the same number to another type of a replacement airbag module."

Paragraph 4.1.4.3., replace the reference to paragraph 2.5. by reference to paragraph 2.6.

Paragraph 4.2.1., amend to read:

"4.2.1. If a replacement steering wheel type equipped with an airbag submitted for approval meets the requirements of the relevant paragraphs 5. and 6. below, approval of that type of a replacement steering wheel shall be granted."

Paragraph 4.2.2., amend to read:

".... The same Contracting Party may not assign the same number to another type of a replacement steering wheel."

Paragraph 4.2.3., amend to read:

"4.2.3. Notice of approval or refusal or extension or withdrawal of approval or of definite discontinuation of production of a type of a replacement steering wheel pursuant to this Regulation shall be communicated to the Parties to the Agreement applying this Regulation, by means of a form conforming to the model in annex 2 to this Regulation."

Paragraph 4.3.2., amend to read:

".... The same Contracting Party may not assign the same number to another type of a replacement airbag system."

Paragraph 4.3.3., amend to read:

"4.3.3. Notice of approval or refusal or extension or withdrawal of approval or of definite discontinuation of production of a replacement airbag system pursuant to this Regulation shall be communicated to the Parties to the Agreement applying this Regulation, by means of a form conforming to the model in annex 3 to this Regulation."

Paragraph 5.1., amend to read:

"5.1. General requirements for the approval of an airbag module for a replacement airbag system, a replacement steering wheel equipped with an airbag module of an approved type, or a replacement airbag system other than that installed in a steering wheel."

Paragraph 5.3.1.2. (first), amend the numerotation to read "5.3.1.1."

Paragraph 5.3.10. (former), renumber as paragraph 5.3.5. and amend to read:

"5.3.5. Replacement airbag steering wheels shall be such that, when installed in a vehicle, this vehicle fulfils the requirements of paragraphs 5.2.1.1., 5.2.1.2., 5.2.1.3., 5.2.1.4. and 5.2.1.5. of Regulation No. 94, 01 series of amendments.

If the technical service responsible for this test has doubts that the after market airbag system works well, additional test results, proving the correct function of the system, shall be presented by the manufacturer of the after market airbag system."

Paragraphs 5.4.2. and 6.3.2., amend to read (Note: Keep the title of paragraph 6.3.2.):

"(...) Replacement airbag systems shall be such that, when installed in a vehicle, this vehicle fulfils the requirements of paragraphs 5.2.1.1., 5.2.1.2., 5.2.1.3., 5.2.1.4. and 5.2.1.5. of Regulation No. 94, 01 series of amendments, and/or the requirements of paragraphs 5.2.1.1., 5.2.1.2., 5.2.1.3., and 5.2.1.4. of Regulation No. 95, 01 series of amendments, depending on the category and location of the replacement airbag system(s).

In the case of airbag devices of category C, additional instrumented dummies shall be used for the verification of the performance of each airbag system."

Paragraphs 6.2.1.3. and 6.2.1.4., amend the symbol "mdaN", to read "daNm" (four times)

Paragraph 6.2.1.4., replace the reference to annex 9 by reference to annex 7.

Paragraph 6.2.3., amend to read:

"6.2.3. Frontal impact test(s) with vehicle(s) for steering wheel(s) equipped with an airbag module of an approved type.

Replacement airbag steering wheels shall be such that, when installed in a vehicle, this vehicle fulfils the requirements of paragraphs 5.2.1.1., 5.2.1.2., 5.2.1.3., 5.2.1.4. and 5.2.1.5. of Regulation No. 94, 01 series of amendments.

If the technical service responsible for this test has doubts that the after market airbag system works well, additional test results, proving the correct function of the system, shall be presented by the manufacturer of the after market airbag system."

Paragraph 7.2., amend to read:

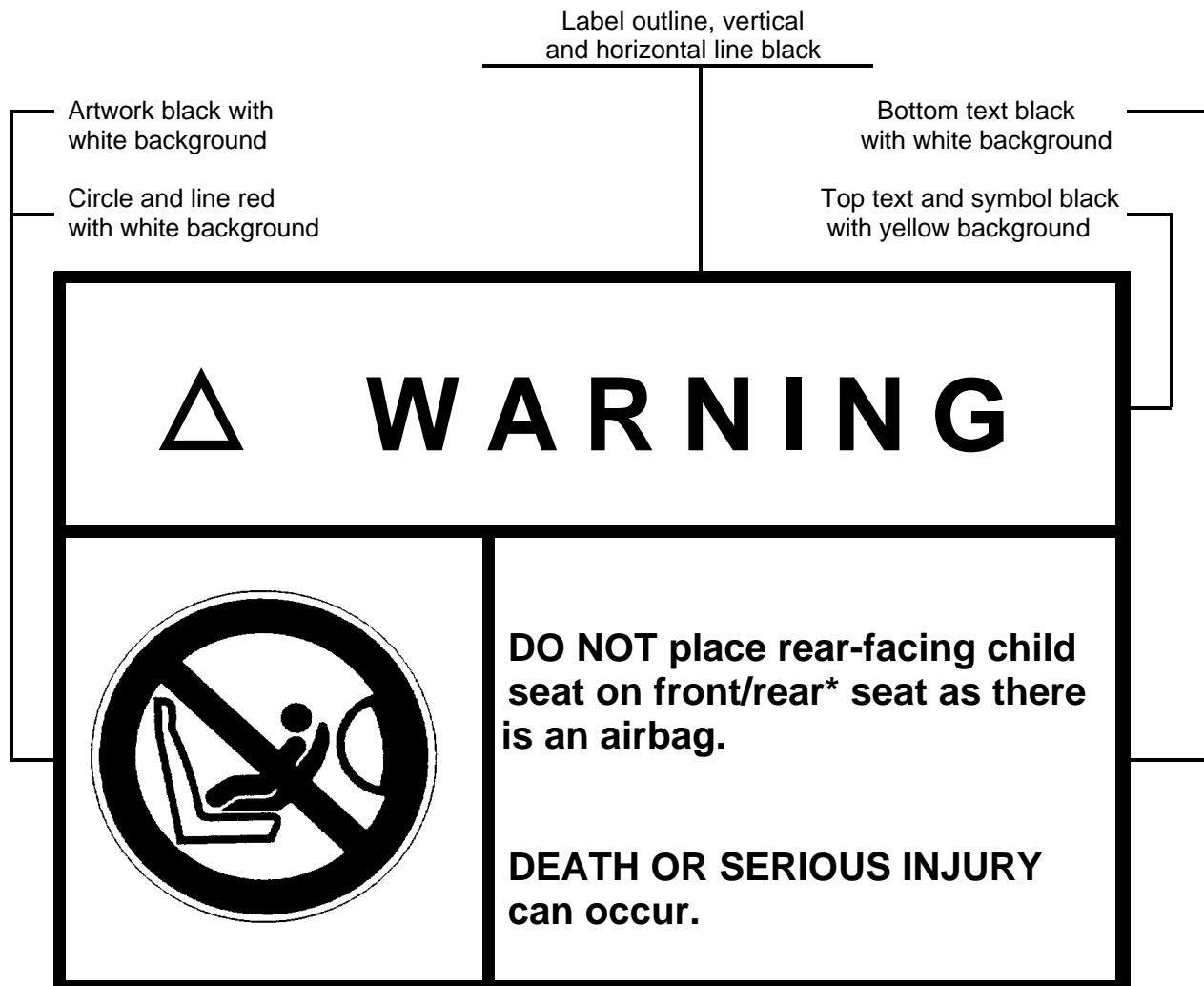
"7.2 The replacement airbag system shall carry labelling and information for the use of child restraint systems according to Regulation No.94.

Airbag devices of category A, B, C or D shall carry the inscription "AIRBAG" located in the interior of the circumference of the airbag steering wheel or on the cover of the airbag module; this inscription shall be durably affixed and easily visible.

In addition, in the case of a frontal protection airbag intended for use in any passenger seating position, the following label shall be permanently attached to the visible surface of the cover of the airbag module (the text information shown is a minimum).

This label shall be provided in the language(s) of the country where the device is sold.

Label minimum size: 60 x 120 mm.



* delete as appropriate"

Paragraph 10., amend to read:

"10. MODIFICATIONS OF THE TYPE OF AN AIRBAG MODULE OR A VEHICLE WITH REGARD TO AN AIRBAG SYSTEM OR A REPLACEMENT STEERING WHEEL WITH AN AIRBAG OR A REPLACEMENT AIRBAG SYSTEM, OTHER THAN THAT INSTALLED IN A STEERING WHEEL"

Annex 1.

Paragraph 3., amend to read:

"3. Description of the type of replacement airbag module given
by the manufacturer:
....."

Paragraph 5., amend to read:

"5. If applicable, name and address of manufacturer's
representative:"

Paragraph 6., amend to read:

"6. Replacement airbag module system submitted for approval: ...
....."

Annex 2, amend to read:

".....
PRODUCTION DEFINITELY DISCONTINUED

of a type of a replacement steering wheel equipped"

Annex 3, amend to read:

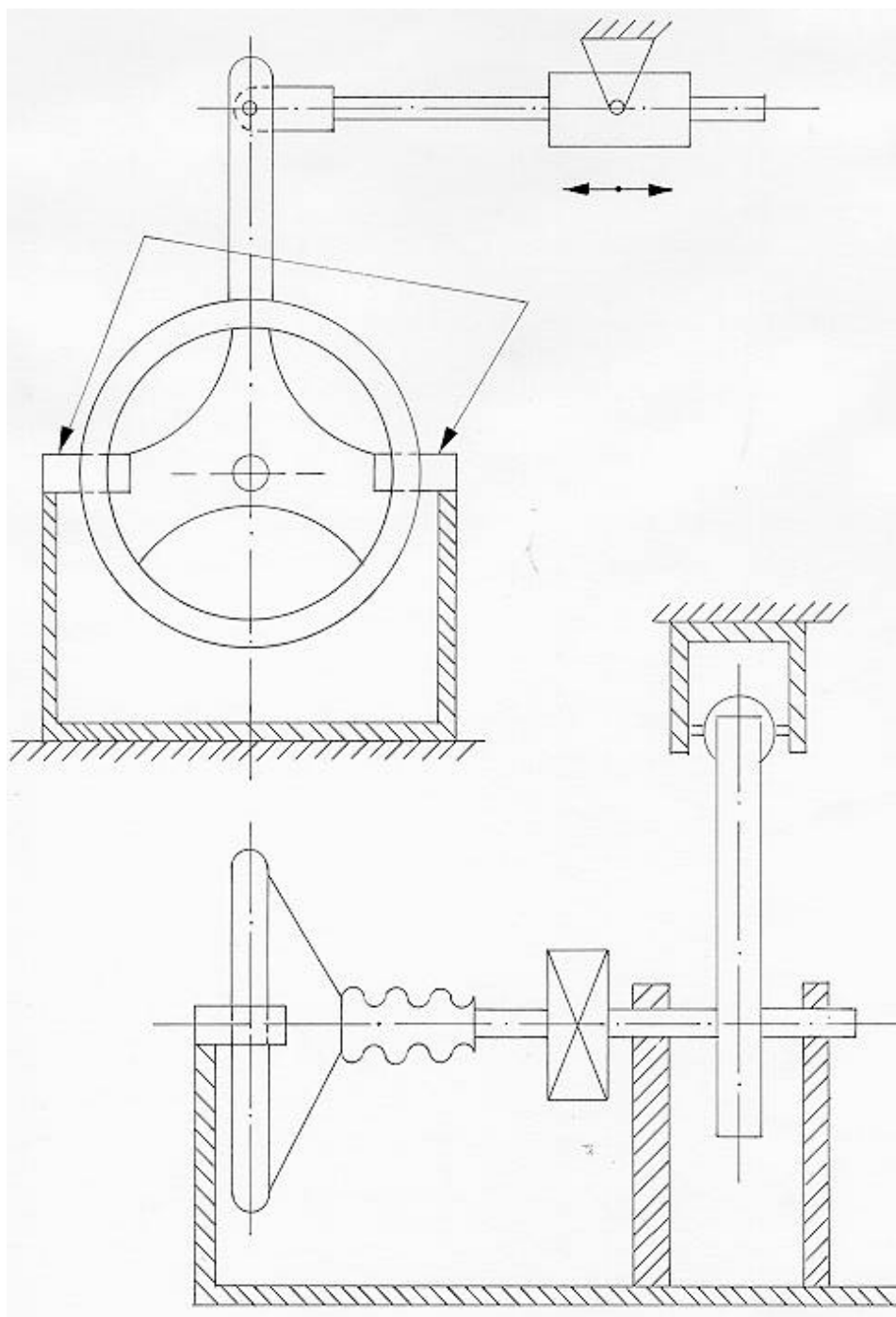
".....
PRODUCTION DEFINITELY DISCONTINUED

of a type of replacement airbag system other than"

Annexes 4. and 5., amend the minimum dimension of "a" to read "a = 5 mm min"

Annex 9 (former), renumber as annex 7, and amend to read:
"Annex 7

FATIGUE TEST DEVICE



Example of a fatigue test device

_____ "

Annex 3

DRAFT AMENDMENTS TO REGULATION No. 22 ADOPTED BY GRSP

Paragraph 6.15.3.9., amend to read:

".... without misting within 20s when tested as described"

Paragraph 7.3.1.3.1.1., amend to read:

"..... at an angle of $65\pm 3^\circ$ to the vertical and the vertical longitudinal plane of the helmeted headform has to be in a vertical position. If the impact point is to be within 15 mm of the rim, the helmeted headform shall be re-positioned so that the impact point is to be more than 15 mm from the rim."

Paragraph 7.3.1.3.2., amend to read:

"... shall be horizontal. This prescription does not apply for the S impact point."

Paragraph 7.3.1.4., amend to read:

".... The drop height shall be such before impact, is equal to:

7.5 (+ 0.15/- 0.0) m/s for both anvils specified in paragraphs 7.3.2.3.1. and 7.3.2.3.2.

5.5 (+ 0.15/ - 0.0) m/s for tests at point S."

Paragraph 7.3.4.1., amend to read:

"..... When a helmet with a protective lower face cover is being"

Paragraph 7.3.4.2., amend to read:

".....
P, in the area with a radius of 50 mm, which centre is the intersection of the central vertical axis and the outer shell of the helmets.

S, in the lower face cover area, situated within an area bounded by a sector of 20° divided symmetrically by the vertical longitudinal plane of symmetry of the helmet."

Paragraph 10.5.1.4., the table, the footnote, amend to read:

"* Both tests (7.7. before 7.6.) are carried out on the same helmet."
